10 June 1964

MEMORANDUM FOR THE RECORD

SUBJECT : Tests of Modified Sights for 7.62 Belgium (FAL) Rifle

REFERENCE: Memo for Rcd. dated 23 May 64, Subject FAL Silencers/ Sights, from C/WH/SA/MOB/PM

1. On 2 June 1964, Mr. Donald R. Dunn, TSD/EB and the undersigned went to Isolation to test a modified sight and a telescopic sight developed for the 7.62 Belgium (FAL) Rifle in answer to reference a). The tests were performed with the assistance of Mr. James Earb and Mr. Glen Winstead, Isolation.

2. The first tests were conducted with a Williams Peep sight modified to fit an aluminum block which was mounted in place of the standard FAL rear sight. The Williams sight has a larger diameter peep than the FAL sight and has a wider range of elevation settings as well as more positive control over both elevation and windage. The main purpose of the test was to establish a point of reference on the aluminum block to match the graduations on the Williams sight and allow the sight to be set visually for the desired range once the weapon was zeroed.

3. Firing commenced from 100 yards at a silhouette target using the hood of a jeep as a rest. Both underloaded and full load rounds were used. Light rain which gradually increased in intensity during the day served to complicate the procedure. The test results at ranges from 25 yds. to 130 yds. using the Williams sight are summarized in Attachment I. Exceedingly erratic results were obtained throughout the tests and one attempt to duplicate the 100 yd. zero resulted in a different setting later in the day.

4. A 2X scope of Japanese manufacture equipped with aluminum mounting rings front and rear to fit the rear gas port and rear sight mount respectively then tested. The scope was attached to the rifle with difficulty and attempts to zero it were frustrated by the inability to determine where the rifle was shooting. The mounting moved while attempting to adjust the elevation knob and it was determined that the mount could not be attached firmly enough to insure in retaining a proper zero. The test with the scope was aborted.

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5. It is recommended that the scope and mount be discarded as unfeasible. The Williams sight is acceptable although the number of clicks per revolution of the knob should be reduced. Further testing of the underloaded ammunition should be conducted to determine the reasons for the erratic performance.

DANIEL J. HOGAN

cc: C/TSD
C/WH/SA/MCB/PM (Col Hicks)

Attachment: As Stated

DDP/TSD/EB/DJH/EC

C/TSD/SDB

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ATTACHMENT I

2 June 1964

Williams Peep Sight

At 25 yds., reduced loads
Raise sight 60 clicks from bottom
Match ref. line to 4th line from top

At 50 yds., reduced loads
Raise sight 80 clicks from bottom
Match ref. line to 5th line from top

At 75yds., reduced loads
Raise sight 80 to 110 clicks from bottom
Ammunition performance very erratic, wide variance on target

At 100 yds., reduced loads
Raise sight 120 to 160 clicks
1st trial, 160 clicks, little variance
Match réf. line to 9th line from top
2nd trial 3 hrs. later, 120 clicks
Match ref. line to 7th line from top

At 150 yds., reduced loads
Raise sight 230 clicks (1 trial)
Match ref. line to 12.5 line from top

Could not mount telescopic sight properly. Began process of shooting in scope, found it moved.

At 100 yds., full loads
Raise sight 4 clicks from bottom

At 150 yds., full loads
Raise sight 8 clicks from bottom.

1. Intermittant rain throughout tests.
2. Cases with reduced loads were noted to be blackened at neck after firing. Suspected to be low pressures not causing sufficient case expansion to obtain proper seal. This can contribute to erratic performance. Recommend gas port be turned to off position to prevent action from opening and allowing gas leak. Also investigate soft annealing case necks.

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